

## FIG. 1

SEQ ID NO:1 S0015

1 tattcttcac gtgattcagc gaagataaca ctctttaaac act[p:gcaattg ccactggaag  
 61 aat]tagcacg aatttgagat gttttttcac cggaagataa gttcataact aaggtgtttc  
 121 ttcgtttcaa caaacaagat ataaagttca accagatttt acatttttga aaacctttta  
 181 tctttacata tatcagtggg ggagttgaaa tgggagatac atcaactcta aattagagaa  
 241 attttttagga tacaactaaa caagtttaac caaatttccc ttgtcctaaa cagcaaatga  
 301 ttcagtga[10c]a cattgggttg atttagcgac ttcaaacctt ttgtcttctt tttcattttt  
 361 caaatttcta gctctacaac taattcaatg actactcagt ttaaaacaaa acaaatggaa  
 421 gattgggttg gagattt[17a]ag aagaaacttg ccaggtgggtg gcttgggtccg tggaggaaag  
 481 agggctcagg ggctaaccac ctgcgaactt agggctcttg cctccgtctc ccgccttttc  
 541 gccgagagcc cgcaaggtga cagagtgcgg cgaggtcgac acttcggccg tt[29c]gggggtcg  
 601 ccgcgtcggg cgtccggggc ggcgtcgtgt tccggggact gagggcagct actcagctag  
 661 accgctggag cccaaaggaa tctaaggtta catgctgtct tgttgagcct attttatggg  
 721 cctgcgactt tgcagttagc cgaggcatat tggaataaat ttaatttagg tctctcaatt  
 781 tgtcgtcgag cctgaaattc atcactggac cgcaaaacta gat[q:acatgc attccccaac  
 841 tta]gttaagg tagcagtggg ggtgggcagc cagcgaggag ggccgtgggt gtcctgtgatg

nhb/hts/mth/yki/krr/tgr/ghm/mnk/yma/hez/ksh/tkh/akk/ash/ank/mtb/hnh/ymt  
 /hit/mmm/fom/don/knh/ssk

10ksh:t, 10krr:t, 10tgr:t, 10mnk:t, 10yma:t, 10tkh:t, 10akk:t, 10mtb:t,  
 10hit:t, 10mmm:t, 10fom:t, 10don:t, 10ssk:t, 17ksh:g, 17krr:g, 17tgr:g,  
 17mnk:g, 17yma:g, 17tkh:g, 17akk:g, 17mtb:g, 17hit:g, 17mmm:g, 17fom:g,  
 17don:g, 17ssk:g, 29ksh:t, 29krr:t, 29tgr:t, 29mnk:t, 29yma:t, 29tkh:t,  
 29akk:t, 29mtb:t, 29hit:t, 29mmm:t, 29fom:t, 29don:t, 29ssk:t

## FIG. 2

SEQ ID NO: 2 S0040

1 ttttaacttta ttgtagtat tagtactagc tctggttgtc taccac[p:tctg ctgcctctgc  
 61 acatac]tgat ctagaacaca catgttctct acttctctgc agtcactgct actgacatgt  
 121 gggccctact ctctttgggc cagcatgtca gtgtcagcag aggatctcat tctacagtc  
 181 aatccatgtg tgctactccg ttaaaaaaac gaattccaag ctacaaacct aaacacgttt  
 241 ttttggacgg aggggtatat ataaacaaag aaaaagcact gtaggtacat aatatagtag  
 301 tag[7a]tcagtc ttattacagc tgttcaaaaa cagttcagta tatagtgaat ctagttggtc  
 361 tgttgctact gcagttaatt ggctctgggt gcttttggtg atctgttgct actgcagtta  
 421 attagctccg gttgcttagt tgatcaagtt aattagctct ggctgtgccc taatcaa-aat  
 481 tcatatatag tagcttcaag cagacatac cacctttcct accttctggt ggatactcct  
 541 ctcttttata atttctgcag taagcttgaa acataagtag aactgccat taattaaaca  
 601 agcacagtga attaaccagc atatgtgtaa tctgcatact aattaaatta gggtcgtgcc  
 661 agttcaaggc agccacaacc acatacaggc gatccatata ttgatttata tatctgatcc  
 721 gtttggtgag gttggtgcat caatcccccc tgaagcagct atgtcgagcc taattgcgat  
 781 ttgattaatc aatttttctc atccaacgat ttaattatgc gtgattttaa tgattcgatc  
 841 ggtacagttt tttttctctt tcttcagtgc tagtgcttct actagtattc gtgacaataa  
 901 cctgtcggat ttggaatata tgat[q:tgctga tgtggtgtcg ttttt]attaa caagcccttg

nhb/hts/mth/yki/krr/tgr/ghm/mnk/yma/hez/ksh/tkh/akk/ash/ank/mtb/hnh/ymt  
 /hit/mmm/fom/don/knh/ssk

7yki:t, 7krr:t, 7tgr:t, 7ghm:t, 7mnk:t, 7yma:t, 7hez:t, 7ksh:t, 7akk:t,  
 7hnh:t, 7hit:t, 7mmm:t, 7fom:t, 7ssk:t

## FIG. 3

SEQ ID NO: 3 S0279

1 tagcattagg ataaaa[p:gggg cgctccttca aaactt]taaa atatcaaaga acaccctttt  
 61 gagattgaat tgctttcttct ggtcttttggc tcttctttcg cttttcagca ccagaatcgt  
 121 acttcctatt tctagctgac ataagtagga ttgaggaaat aagtgtcttc ctatttcata  
 181 aacaaaagaa aagtaatttg [1a]gtcaaacag tcacatcact atttaagttt tgattcaatc  
 241 gatagtttga ttcattattac atctactatt tgatacgaga ctcaatgtct caactcttaa  
 301 gtctaaaagt aacttttcaa tgctgcacaa aggtagtagt cagggacacg aagat[3a]agtg  
 361 gatgagaggc actgacaaag gtagccggcc aaccgcttgg cattgatggc gcttgcccgt  
 421 tggtcgctcg ctgcctcgtg ttgggctgg[5g] gtcgggactt tgcaggcatc gtcatttcat  
 481 cgtcgaattt gaaatcgaga ttgactccag tca[7c][8a]cgaca tgactacaca  
 acagtgtgac

541 ttgatctcgt t[9c]gcctctca gcctccaatg cacctgatgg cagatgggcc tctctaateg  
 601 attcacaggt agaagcagga ttgtggetcg gctatgcatt aatgtgcgcc tctccgatta  
 661 acttggtg gcacaaaaaa ttgggggaca ctct[11a]tcac gccaatgtcg cacacaacct  
 721 tcgacaggct tgcccattag tgtgacactc ctgccacat cactgtctca ttgtcatcca  
 781 tcacctgtc ga[q:ccattgtg gtgtgccaaa cc]gcggtgt cgtctgtttg tgattttgta

nbb/ksh/hts/mth/yki/krr/tgr/ghm/mnk/yma/hez/tkh/akk/ash/ank/mtb/hnh/ymt  
 /hit/mmm/fom/don/knh/ssk

1ksh:t, 1hts:t, 1mth:t, 1yki:t, 1krr:t, 1tgr:t, 1ghm:t, 1mnk:t, 1yma:t,  
 1hez:t, 1akk:t, 1ash:t, 1ank:t, 1mtb:t, 1hnh:t, 1ymt:t, 1hit:t, 1mmm:t,  
 1fom:t, 1don:t, 1knh:t, 1ssk:t, 3ksh:g, 3hts:g, 3mth:g, 3yki:g, 3krr:g,  
 3tgr:g, 3ghm:g, 3mnk:g, 3yma:g, 3hez:g, 3akk:g, 3ash:g, 3ank:g, 3mtb:g,  
 3hnh:g, 3ymt:g, 3hit:g, 3mmm:g, 3fom:g, 3don:g, 3knh:g, 3ssk:g, 5ksh:a,  
 5hts:a, 5mth:a, 5yki:a, 5krr:a, 5tgr:a, 5ghm:a, 5mnk:a, 5yma:a, 5hez:a,  
 5akk:a, 5ash:a, 5ank:a, 5mtb:a, 5hnh:a, 5ymt:a, 5hit:a, 5mmm:a, 5fom:a,  
 5don:a, 5knh:a, 5ssk:a, 7ksh:t, 7hts:t, 7mth:t, 7yki:t, 7krr:t, 7tgr:t,  
 7ghm:t, 7mnk:t, 7yma:t, 7hez:t, 7akk:t, 7ash:t, 7ank:t, 7mtb:t, 7hnh:t,  
 7ymt:t, 7hit:t, 7mmm:t, 7fom:t, 7don:t, 7knh:t, 7ssk:t, 8ksh:g, 8hts:g,  
 8mth:g, 8yki:g, 8krr:g, 8tgr:g, 8ghm:g, 8mnk:g, 8yma:g, 8hez:g, 8akk:g,  
 8ash:g, 8ank:g, 8mtb:g, 8hnh:g, 8ymt:g, 8hit:g, 8mmm:g, 8fom:g, 8don:g,  
 8knh:g, 8ssk:g, 9ksh:t, 9hts:t, 9mth:t, 9yki:t, 9krr:t, 9tgr:t, 9ghm:t,  
 9mnk:t, 9yma:t, 9hez:t, 9akk:t, 9ash:t, 9ank:t, 9mtb:t, 9hnh:t, 9ymt:t,  
 9hit:t, 9mmm:t, 9fom:t, 9don:t, 9knh:t, 9ssk:t, 11ksh:g, 11hts:g, 11mth:g,  
 11yki:g, 11krr:g, 11tgr:g, 11ghm:g, 11mnk:g, 11yma:g, 11hez:g, 11akk:g,  
 11ash:g, 11ank:g, 11mtb:g, 11hnh:g, 11ymt:g, 11hit:g, 11mmm:g, 11fom:g,  
 11don:g, 11knh:g, 11ssk:g

## FIG. 4

SEQ ID NO: 4 S0044

1 tccaaaatcc aca[p:tgcaatg tgccattcca tag]gaatttc atgggatttg aaaatcgta  
61 atcctttgaa tcaaattggcc aaataggaaa atttcgtata ggatttgaat cctatgaaaa  
121 tcctatataa atcctttgat tcaaagggcc ctaagtttcg tacgtgtgca actgtgcatc  
181 cagcacgtac tactacgtac tcctatgtac ttgtagtggt gtagcctata catatgcatg  
241 aagcgttcca ggaaaaatag gagtctcagt aatttgtgca ggcatgcggc ccatggagta  
301 atagaccatg ctgaataatt tcagttcaaa tttcatactc caactgtaat accatacgca  
361 aaccatcaac ttacaa[4t]act gatatacttg acatttcaaa ataacatagc ctttggtttt  
421 agctgacgta gcgactgagt aagctagcac gaggtcata tgggtccac atgtcagcgg  
481 cccaatcttc ttccacatct ctctctctt cccaatccta atctctctcc atgcctctag  
541 ggtggtgggg gtgggaagaa gctcgacagc ggtggccaac acatacgcaa ggagaagtc  
601 gaggactgca agacgacttt cttttgcct accactggaa ggcaacacct tgtttcctg  
661 ctttctagtt gagcgaggac actgaatgca tggaggtgtt gtgacccaaa tctacggcag  
721 aatccctcgc cggaagtgc cggagatct agcagagaag aggcgagaag aacagggtag  
781 aaaggggaaa cacgaggaag cagctgggga ggaggatatt tttcatttct tcatgaatt  
841 gttttctcaa tacagctgga gtatatatac tcacgcactc caccctctt gcc[q:ttaggg  
901 cccaccttgt cata]gacact tctatctata aagagtagaa gatgtattca cttctgaaaa

nhb/hts/mth/yki/krr/tgr/ghm/mnk/yma/hez/ksh/tkh/akk/ash/ank/mtb/hnh/ymt  
/hit/mm/fom/don/knh/ssk

4ksh:c, 4ymt:c, 4don:c, 4knh:c

## FIG. 5

SEQ ID NO: 5 S0252

1 tgctgcatgt ttcagtccaa gctagg[p:cgcc acagaacgga caaaag]taag aaaatcgcta  
61 cgtacaactc acgtctgacc agcacttagc tgctaattgc cctagccaca tggagagaag  
121 ttggtctgcg tgaagcgtaa cgattggcag ataaagttgg at[2t]ggatggg aatcggacga  
181 gggagtcgaa cgtatagcaa cactccagaa gtaaagcagt aaaccgaaaa agttttgcta  
241 tcacttgatg gaccgtctcc acaagtggcg actggcacga catggccact cgacagaacc  
301 gcacaacaaa tgctgaccc tttgcccctat tccatgcgaa gttgcgactt gcgagtcttt  
361 gggcagggca tgcactactg acaagatgaa agaagaaaaat caaccgtaat tggggcgctgc  
421 actgctgcag aatagtcctt gtgatcatgt ccatgtgacc atgttcgta cgttctgagg  
481 cgtcgatagc gagcgatgct ggtaatcgtg accaatctcg ttcacgtcca ccttgttgac  
541 gcgcacgtac gtcgctatat atgacaacgt cctgctacat atagccttgc tcactttcgg  
601 actttgacgt atgtgaagag agcacgacta ggagccacta atcatatggt ttggtacatg  
661 agaggatatg catgtttcac tttgcacca acatgtactg tactcatcta gtcacccac  
721 tagtattttc catcggtgtc cttttctcct gtgatctctc gctttgcaca caaacctcgc  
781 aacaaaacgg tctcgtgctc gcctttcagc [q:gcttcggcaa aggattggtc] ggttcatgag

nbb/hts/mth/yki/krr/tgr/ghm/mnk/yma/hez/ksh/tkh/akk/ash/ank/mtb/hnh/ymt  
/hit/mmm/fom/don/knh/ssk

2hts:c, 2mth:c, 2yki:c, 2krr:c, 2yma:c, 2hez:c, 2ank:c, 2mmm:c, 2fom:c,  
2don:c

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## FIG. 6

SEQ ID NO: 6 S0109

1 aattattatt attattattt ccaatcagcc atatatatgg cttgccaa[p:cc gatggcagca  
 61 caaatctt]tc ggcgccgttt gaaccattc ttcaaacttg aagttggatt tggacgtaat  
 121 agaaggtgca gttgttcaact tgttcttgcc atcaacgtgt acggttgaac aaatcgggtg  
 181 atctcttatg gttaacgtgc cctgttgatg tctgaaaacc catctgttct ttgttctaac  
 241 tcttatctta tctctcatt ttttttgcgt tgggtctaac ttcgtgttct actagttttg  
 301 aacgagtcac tcaactcggac tcgagagctc tgaacttctg aacaagccaa aatgctgtct  
 361 gaaccgagat cttcttggcg ctgtcagcct gtcacaaact cgcaatccaa ttgcacttcc  
 421 agcgggttgag caggttcaat tcaacatgac tttcatcagg agatggtaag ttaggaacag  
 481 attactgtca caactcacia cagttattac tact[1a]tcgca acaaagtcta gctgtcctta  
 541 tctcatcgca ctggatactt cagaacaag cataacagta gcattggagc aaaggacaca  
 601 gcatggctag aagtagatgc tgc[2tgc]ctag agatatcacc tcgaattcat ggcatgaaca  
 661 aacgtcgttc atgcagccat gcaggaataa taagtcaga acaggattca ggacaaattc  
 721 aagctatcta caagcttgcc agcatcatca tattataata attgctttaa tagtcagcaa  
 781 actcgtacag aatagccaga tccaaatttc cacaaactat atatcatcat caggaatttt  
 841 aaaagagaa ctcggaatcg atttcgcatg atattcga[q:gg acaccaagc caaactga]cg

nhb/hts/mth/yki/krr/tgr/ghm/mnk/yma/hez/ksh/tkh/akk/ash/ank/mtb/hnh/ymt  
 /hit/mmm/fom/don/knh/ssk

1mth:g, 1krr:g, 1tgr:g, 1ghm:g, 1mnk:g, 1yma:g, 1ksh:g, 1akk:g, 1ank:g,  
 1hnh:g, 1ymt:g, 1hit:g, 1mmm:g, 1fom:g, 1don:g, 1knh:g, 2mth:-, 2krr:-,  
 2tgr:-, 2ghm:-, 2mnk:-, 2yma:-, 2ksh:-, 2akk:-, 2ank:-, 2hnh:-, 2ymt:-,  
 2hit:-, 2mmm:-, 2fom:-, 2don:-, 2knh:-

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## FIG. 7

SEQ ID NO: 7 S0115

1 taaccacttg cttcagttgc tgcattgctta gtacatcagt actgtcatg[p:c cattggttgg  
 61 tgtggctgt]g agtgaacatt gtgcagcaga gaagcaagca acaatagcat tggaccccca  
 121 agaaccagta cattatctct atctgtgaca gagaacacaa gaatgcaaat gctgataaag  
 181 aatcaagaaa gcattgtgca agcagcaagg tgagtagaga gtgatggaag cagagagaag  
 241 ctgcag[la]cta gtgatgaaaa tgattgggtga gtacagtga acaactaaca acaagtctct  
 301 atgaagaagc aggtactaag catgcatgtg tgtgtgtgtg t[2-]gatggcatg tggtatcaat  
 361 gcttctgggg ttgttcactt gtccaccaga gcaaccagga caagtcttct cactctacca  
 421 ttccgggtgtc attttctctc tcaaccctc ctcttgttgc tttagcaagc ctgcagctta  
 481 aactagatta tgttttcttt cctcaataaa gattaatagt attgttaatc atg[3a]catctt  
 541 tccctcacct gtttctctct caagagagag gaggaggtgc acaggcacag acagctcaca  
 601 caaacattgt gttgttcatt tctctttctt gcctaccttt gttgaactgg tttgccttgg  
 661 gagacacaca ggacactcga ggctgcctgg ctggcctctt tgtcaggag aaacctgcta  
 721 atctgctata atagtgttgc ttataattct atgattctat ccatcacaaa ggacacagta  
 781 tagctgcate ctttaactgc agcttgcagg ctttttctat cgtttacttg t[q:tagcttate  
 841 agccgcgacc a]aaattttta gtactaaaac tcaatattag agttgatgtt aggggttttt

nhb/hts/mth/yki/krr/tgr/ghm/mnk/yma/hez/ksh/tkh/akk/ash/ank/mtb/hnh/ymt  
 /hit/mmm/fom/don/knh/ssk

1hts:c, 1mth:c, 1yki:c, 1krr:c, 1mnk:c, 1hez:c, 1ksh:c, 1akk:c, 1ank:c,  
 1hnh:c, 1ymt:c, 1hit:c, 1mmm:c, 1fom:c, 1knh:c, 2hts:gt, 2mth:gt, 2yki:gt,  
 2krr:gt, 2mnk:gt, 2hez:gt, 2ksh:gt, 2akk:gt, 2ank:gt, 2hnh:gt, 2ymt:gt,  
 2hit:gt, 2mmm:gt, 2fom:gt, 2knh:gt, 3hts:c, 3mth:c, 3yki:c, 3krr:c, 3mnk:c,  
 3hez:c, 3ksh:c, 3akk:c, 3ank:c, 3hnh:c, 3ymt:c, 3hit:c, 3mmm:c, 3fom:c,  
 3knh:c

## FIG. 8

SEQ ID NO:8 S0107

1 tgtatagtgt caaatctact cataggttgt ttgtttt[p:tgc gatggaggga gtattgg]ttt  
 61 gactggatgg gtcattgaaa actggaaaag caacagcggg atgcatggca aaagaggac  
 121 aaaagaacaa gacgaaacat aggtaggatt gcaggatgct caagtgagaa cttgtagtgt  
 181 tagatgaagt gaagtgacaa gccgaagtc cgtgaacgaa gcaacaaaaa attgtgggag  
 241 ttttcc[1a]ttt gttgtatg[2t]g tattatttgc gatttgaaat ccaggctgtg  
 tttagttcct  
 301 tccaaa[3g]tta gaagtttggg ttgaaattga taccatgtga ctgaaaagtt  
 gtgtgtgt[4-]at  
 361 gacaggttga tgtgatggaa aaagtttgaa gtttg[5a]attc aaagtttga tctaaacaca  
 421 gcccctaatgt ttaaagagaa ctt[8t]aacgat taaatttggc cagcaccggg aagccgataa  
 481 acaaaagatg agaataaagt actgtatata caacttccag cctcatcttt tcaattatgc  
 541 ttatgtttat caactaaaat ttaaattttc aaccttaaatt ttagagttga ttttaggggt  
 601 ttttttatcg aagtttattt tttagccttt acttttagat cgtaggaaca cgtatatgaa  
 661 aaaattattt ttcatttgca attataccgt ttgtcttatt ccctatataa gcgaaacgag  
 721 ggaccttccc tgtcttgctt gtgatcatca gtcattctat ct[13a]tccgtg gatgtgaagt  
 781 tacgacagaa atgatccatc gttcaaattg aattacattt gtact[q:actag cgggtgtacg  
 841 tcgca]tgtca gcgtaacgaa acgatgacat cgccatcaca gtaggagttat tggactaat

nhb/hts/mth/yki/krr/tgr/ghm/mnk/yma/hez/ksh/tkh/akk/ash/ank/mtb/hnh/ymt  
 /hit/mmm/fom/don/knh/ssk

1mth:t, 1yki:t, 1krr:t, 1tgr:t, 1ghm:t, 1mnk:t, 1yma:t, 1hez:t, 1ksh:t,  
 1tkh:t, 1akk:t, 1ash:t, 1ank:t, 1mtb:t, 1hnh:t, 1ymt:t, 1hit:t, 1mmm:t,  
 1fom:t, 1don:t, 1knh:t, 1ssk:t, 2mth:c, 2yki:c, 2krr:c, 2tgr:c, 2ghm:c,  
 2mnk:c, 2yma:c, 2hez:c, 2ksh:c, 2tkh:c, 2akk:c, 2ash:c, 2ank:c, 2mtb:c,  
 2hnh:c, 2ymt:c, 2hit:c, 2mmm:c, 2fom:c, 2don:c, 2knh:c, 2ssk:c, 3mth:a,  
 3yki:a, 3krr:a, 3tgr:a, 3ghm:a, 3mnk:a, 3yma:a, 3hez:a, 3ksh:a, 3tkh:a,  
 3akk:a, 3ash:a, 3ank:a, 3mtb:a, 3hnh:a, 3ymt:a, 3hit:a, 3mmm:a, 3fom:a,  
 3don:a, 3knh:a, 3ssk:a, 4mth:gt, 4yki:gt, 4krr:gt, 4tgr:gt, 4ghm:gt, 4mnk:gt,  
 4yma:gt, 4hez:gt, 4ksh:gt, 4tkh:gt, 4akk:gt, 4ash:gt, 4ank:gt, 4mtb:gt,  
 4hnh:gt, 4ymt:gt, 4hit:gt, 4mmm:gt, 4fom:gt, 4don:gt, 4knh:gt, 4ssk:gt,  
 5mth:g, 5yki:g, 5krr:g, 5tgr:g, 5ghm:g, 5mnk:g, 5yma:g, 5hez:g, 5ksh:g,  
 5tkh:g, 5akk:g, 5ash:g, 5ank:g, 5mtb:g, 5hnh:g, 5ymt:g, 5hit:g, 5mmm:g,  
 5fom:g, 5don:g, 5knh:g, 5ssk:g, 8mth:c, 8yki:c, 8krr:c, 8tgr:c, 8ghm:c,  
 8mnk:c, 8yma:c, 8hez:c, 8ksh:c, 8tkh:c, 8akk:c, 8ash:c, 8ank:c, 8mtb:c,  
 8hnh:c, 8ymt:c, 8hit:c, 8mmm:c, 8fom:c, 8don:c, 8knh:c, 8ssk:c



## FIG. 9

SEQ ID NO:9 S0126

1 attacaaaaa ttatatgaac atgcttaaac aatttacaag aataattctg gttgatg[p:gct  
61 tgaggcacgt caaaatg]ttt cataaagtgt gaagtgagt taactcaact ggttatgttt  
121 ttttatggaa tcagtctacc taagttgaag tcctagactt acgccgatgc ttgtatttat  
181 tgttaatttt tttttcgtgc tagacgccta tcatgacttc gttaatctca agatatgctc  
241 gcacagtctt tcggaggtgc tcatatgagt aagatgtgcg tgtgtacgtt catatgagt  
301 agtatacgtg tgctacgaga gtctgcgtat acagtgtgct tctacaaaaa aatgtttcag  
361 agtaaatctc acaaaactgc aggtactttg atcaaattat tataaaacta cagattta  
421 gtgatgtatt acaaaactac atatttaacc atgaaattat tacagaacta caga[19t]ttaag  
481 attaagtatc acaaaactac aaatttaata ataaaattat cacaaagata taggttttgg  
541 ggtttaaatt cttagcacta atatgttatg attgagttat aaatatctaa gttttgta  
601 taaattgatg ctaaaccatat agttccacga taattttggt actaaatctg tagttttata  
661 atattctacc ttaaacttat aattttatga gaaattcagt gttaaatctg tagttttgta  
721 atatatattc ttaaatatat agttttgtga aatttaatca atgtttcaca ggagacgtgg  
781 catatatgta tactccacag agcgtgtaat taaacgtaat taaaatat[q:ga ccaacatgaa  
841 cgacggaa]ga ctacgtgtga accagccagc taattggccc tggaatccgt gatgaccaag

nhb/hts/mth/yki/krr/tgr/ghm/mnk/yma/hez/ksh/tkh/akk/ash/ank/mtb/hnh/ymt  
/hit/mmm/fom/don/knh/ssk

19yki:g、19yma:g、19ssk:g

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## FIG. 10

SEQ IDNO: 10 S0124

1 aaaagt[p:ccca cggaacagc caaaag]ttaa ttaaacctta ccattgaatg cagcattggt  
61 gaccttgctg cccttgaaag cttagttagt tcattgggtat caaaaggaga aatttcattcc  
121 aacacgggtgc actcttggtt cccttcaaag ttgtctcata gcaacctttc aaatgctatt  
181 ttttacagtt tagttacagt aatgctaa[lg]t actcccccca ttccaaaata tagggcacia  
241 cgattttttc ccctaattgtt gcataatacg aggttcgcat gcatgcgtgc atgctattga  
301 ctagcacctc cccctcctct aa[2g]ttctatt tttaaagcct ctaccctcaa gatctctgat  
361 ctctaattccc attgggtgca tgcattttat ttattgggtat gatccaaatt agaaggtgat  
421 aataattttt tcttggtttt tgcgtaagag atagtgtctc attatatattt ggaatgtagg  
481 ggagtactca tttattctag cacaccaatc tcctgtgcac caaaagtgat tctgcacata  
541 gattgagaat gcaaggtagt actaacttgc aattaagtga gtgcattaat tgctgaatat  
601 gcataaatta agaacttaag atgcatgcaa agaattattgc tcccagtttc tccactttct  
661 gatgtgaact tcccttatct agatcctaca gtgggaactt tttctgttc atcttgaagt  
721 atcttttggt agctgctcat caaaataatt tatattg[6c]ct ataacataac ttataccatt  
781 ttgtcgatg ttatttatct aacttcagt acacctatta tcttttggtg gggaagtcca  
841 cacttgtaa atccattgt cttttgcaga taacagccct gtgggattat ttttgcttcc  
901 acatcaatgg tgtgaaacca gtgcaaagcc gtggagcttt at[q:cgattctt tgcattggcag  
961 ca]aagtcac tcccagcatt ttgggtactc atttgcaaga tattattgat attgggtttg

nbb/hts/mth/yki/krr/tgr/ghm/mnk/yma/hez/ksh/tkh/akk/ash/ank/mtb/hnh/ymt  
/hit/mmm/fom/don/knh/ssk

1krr:t, 2krr:a, 6krr:t

## FIG. 11

SEQ ID NO:11 S0146

1 cttaatccct taatcttcat gtttagaag[p:a ttcgaacggg ggatccagt]c ttcaacttgg  
61 cagcacacag tctcaatctg cctctccatt aatagccaaa caagctgtgt ggcttttctc  
121 ttgcaacttg cagctgtgct gatgttgctg cattctgggtg aactaggcta aaaggcattt  
181 tgtgggtcagg cctgttttag ttttacgggtg aaaagttttg gcgtgtcaca tcggatatac  
241 ggacacacat ttaaataatta aatatagtct aataacaaaa taaattacat attccgtctg  
301 taaattgcga gacgaattta ttaagcctaa ttaatacttt tatcaaatca tggcgcaatt  
361 aggettaaaa gattcgtctt acaatttaca cgcaatctgt gtaattagtt tttttattta  
421 tatttaatac taaatacatg tgtccaaata ttgatgtga catgatgaaa agtttttgcg  
481 tgaaaactaa acaggacctc atccacattg ccatggatac atatcattca tgccatggct  
541 agctacctct tgataatagt agaattgtca cgccccgaac tagtcccgcac cggaactagc  
601 ccgtgacgct c[5ca]atttaac ctgttaatcg ataccagtcc caggaaatag tgctggtatg  
661 acagggagac agaatacac agcaacagag gtctctttat tatagagtag aggtacagtc  
721 atgttgggct gcggacagat cccgagctca caactgcatt acagaaggga aacggaagcc  
781 aggacttgga ccaaacaaca caggcgcgac ttgggaacta ggccgaaacc ctaaaactca  
841 tcatagccgg cttgtcctg gaagaact[q:cc tcatcagcag gatccgct]tc atcttcttca

nhb/hts/mth/yki/krr/tgr/ghm/mnk/yma/hez/ksh/tkh/akk/ash/ank/mtb/hnh/ymt  
/hit/mmm/fom/don/knh/ssk

5krr:ag, 5tgr:ag, 5yma:ag, 5ksh:ag, 5tkh:ag, 5akk:ag, 5ash:ag, 5mtb:ag,  
5ymt:ag, 5don:ag, 5knh:ag

12/30

## FIG. 12

SEQ ID NO: 12 S0135

1 acggaaaatg atgtaatctt ggaccactct ctgtgacctg tgttatgact tatgact[p:gtg  
61 ctgcaaaggg gagtatg]aat tattgttctc aaaactagag atcactcatg ctccaggaag  
121 ccttgaattt gtcttgattt atactgaaag taacctggat tcataaaatt cttgtgttcg  
181 aagcgaatgg ttgaggaata ttatcgtttc attgagagag agatttcac tcagctagaa  
241 aagttaatac ataaaaaaat gttgctagat acctcattga agacagttta acaccaatgg  
301 aaaaaaaatg ttgcaacata tacctcattt tatttcaaca ttgcagtatt aaaagaaatc  
361 ttttatatat gctcctttta aaaaagcatc aagatgtaca agtttttagg ggtttaactt  
421 ggtagcaggaag aggatgtgca tcattgtcag gaagacaacg gtgtgaaacc tgtcatgaat  
481 ggtagcctcc cgagacttga gctagaggac ctagtaacac cgaggcatca actagccagg  
541 gatgcaagta ggcaatcaat cgaccatctc tatgagagca cgcgtgctaa ttagttaa  
601 cgagtttcag atactaccta tgcctaaaa taagttaatt tttcatccat cacacatata  
661 ccaatacaaa catcaaaaaga ttagaatacc agtcactaga tgaatagaag tcgggggtact  
721 caaaatcggt catatgcttg acaagagagt cgagatgac caaa[8g]taaaa caaatacaag  
781 attatcgat tcagattgaa aacattgggt aaaagatagt tcaaagcaaa acatcggtaa  
841 taaaagatga tttaaagtga aatttgctca ttattatgat aatagctcg[q:t ttgatttacg  
901 aggttggcg]a ctaattaagg cttatttagt tcccaaaata aaaaatttca cgcagtcata

nhb/hts/mth/yki/krr/tgr/ghm/mnk/yma/hez/ksh/tkh/akk/ash/ank/mtb/hnh/ymt  
/hit/mmm/fom/don/knh/ssk

8ghm:t, 8ksh:t, 8ymt:t, 8hit:t, 8mmm:t, 8fom:t, 8don:t, 8knh:t

13/30

## FIG. 13

SEQ ID NO: 13 S0155

1 gaagcatctt aattccagac aagtcaaatt tcatagcaag ggacgatgtt atgattattt  
61 attgaattgt acagtactat tcaacctgac aaacattgtg caatcacatg gaaatggagc  
121 gttcatttat caaatttgca cgaattcggc gatctcaacc tcaagaggag caactaccgt  
181 attcatcctc aatgttaatt tctccccgaa catattatcc tactaccgta ttcacctca  
241 atgttaattt ctccccgaac atattatcct ttcgtgcttg atctaatttt aggcatagct  
301 caaaattagt gcaactaatc tacaactgt gaatggacaa aaatatacag cttcagcttc  
361 tcaaaaccac ttccccccatt cgaacctgaa caaaacccaa ctctgatggc acagtaaata  
421 actaactagg gcaagaacca tcgcgcgaca cgggcgcggg ctagatcgat cgatcggtcg  
481 atcaagcccc tcccccaaga gggaaacacg accagcgaca gcgatccatc caacgccgtc  
541 gcatcattca cagctatagc ctagcttgga [2g]gaatcaaac catggatttt ggccttgacg  
601 ttgtcgatgt gtcgctgctc tccacctga gaaacntggc cccgtcaggt cttaaatacg  
661 ggtgtctt

nhb/hts/mth/yki/krr/tgr/ghm/mnk/yma/hez/ksh/tkh/akk/ash/ank/mtb/hnh/ymt  
/hit/mmm/fom/don/knh/ssk

2mth:t, 2krr:t, 2tgr:t, 2ghm:t, 2mnk:t, 2yma:t, 2tkh:t, 2akk:t, 2mtb:t,  
2hnh:t, 2don:t

## FIG. 14

SEQ ID NO: 14 S0161

1 ttataccaca ggtgctgaca ttaatatgct tttacttcag tttgtgtttt gttctctgtt  
61 taatcctgca tatgcctgtt aaatttatta caaagactat attaaactag ttttacctgg  
121 cgaaaatatt aaactagctt tgatagttct tgttgcaaca acagaaccgt atttgtttta  
181 tttcaaatat tatgttccat tagcggaaag agcttggttg ttttgttacc tctttttttt  
241 ggcaaagaa gaatgctata tacaagctag attgcaatcg tatatcagga aattgactga  
301 tcatgtatgt cgacatgtcg tcttttatgg gagatgaagt tttaacttcc cccataactc  
361 tgttttaggt aaatgtagtt ttgcagaaat tttctgccta aatctatttt gtactttgtt  
421 gatctaacat tccttacact tagtttctcc atttattgat tgattatttt tctctgtttg  
481 ttgaggcctt agcatgtttt gcttcctcct tttgctggca ggtgctgcgt gaggttacca  
541 gtgatactat tggagcttgt atatgatgtg tcctttggga ccattcttct gcatactgt  
601 gcagaagctg ctactagttt gttggagaac ctgttggaag acagcttctg cttgtttgt[1a]  
661 taataagatc agcttctagt tagtattact tataagttgc tgcagaattt tgcgtttg  
721 cagcaccgca gaatttttta ctgtgtagaa gctgtagaac atctatatat cacttttcaa  
781 tttgaagaat tgtaaagaga ggcaatggcc gcattctaag cagggtctct at[q:ggaaaatc  
841 cctagttgcg ca]tgcatat agttagccat actagtatat agtagtatgt tggtaataaa

nhb/hts/mth/yki/krr/tgr/ghm/mnk/yma/hez/ksh/tkh/akk/ash/ank/mtb/hnh/ymt  
/hit/mmm/fom/don/knh/ssk

lhts:g, lmth:g, ltgr:g, lyma:g, lakk:g, lank:g

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## FIG. 15

SEQ ID NO:15 S0177

1 [p:ccttggtggtc acacttgagg] cggttgagag ggaggccgc ccagaagaaa ccaggccggg  
61 cttggccgc cggggtcag cactctacc gacactcac ctgcacttct acttccacga  
121 caaggtgagc aagccatcac cgacggcagt ggggtggtg gaccgggtg accgctatc  
181 ggggtccttc tttgggatga tcaacgtcat ggacgatccg ct[2g]acggagg ggcccgagcc  
241 cgagtccaag cccatgggccc gggcccaggg gctgtacatg ggctcagacc aggccaagct  
301 gggcttcttc caggcaatga acctggtgtt caccgacggc acctacaacg gcagcgtggt  
361 caccgtgctc ggccgcaact gccccttcga cgacgtccgg gagatgccgg tgatcgccgg  
421 caccggcgcc ttccgcttcg ccgaggcta gcccaggcc aggacgca[q:ca ccctggacct  
481 caagaccg]ga

nhb/hts/mth/yki/krr/tgr/ghm/mnk/yma/hez/ksh/tkh/akk/ash/ank/mtb/hnh/ymt  
/hit/mm/fom/don/knh/ssk

2ksh:a, 2hts:a, 2mth:a, 2yki:a, 2krr:a, 2tgr:a, 2ghm:a, 2mnk:a, 2yma:a,  
2hez:a, 2tkh:a, 2akk:a, 2ash:a, 2ank:a, 2mtb:a, 2hnh:a, 2ymt:a, 2hit:a,  
2mm:a, 2fom:a, 2don:a, 2knh:a, 2ssk:a

## FIG. 16

SEQ ID NO:16 S0178

1 [p:tgcatcttt gcattgtgag c]tttaagatg tagtgggctt taactttata  
gaaa[1t]ata[2g]g

61 attaatcct atagaatgac atgatgcagg atgtcattaa taatcctcca agctgttccc

121 ttttaacttt ttt[3-]ccctgtt acttgaaact tgactaagga tt[4-]ctcttcgt  
attaatgtgg

181 attgtgtcac tgaccatatg gttgtatctt tctttcagcg ctctgctggg acttggaatg

241 tttgtt[5g]ttt ttcagtgtt tcatggccat ggaactcaga atgtctccaa cgtgcaaatt

301 cttggttgtg atctagaa[6g]a tggttatttg tttgaaacaa tggaagcact tgatgttccc

361 ttagcatata cacttgtgag cttgtgttga tagaattgta aagcttacat atgttttagt

421 tctactatta ttttgaagag [q:ggaaatgtgc agctggatgc]

nbb/hts/mth/yki/krr/tgr/ghm/mnk/yma/hez/ksh/tkh/akk/ash/ank/mtb/hnh/ymt  
/hit/mmm/fom/don/knh/ssk

1krr:g, 1ghm:g, 1ksh:g, 1tkh:g, 1ymt:g, 1hit:g, 1mmm:g, 1fom:g, 1don:g,

1knh:g, 2krr:a, 2ghm:a, 2ksh:a, 2tkh:a, 2ymt:a, 2hit:a, 2mmm:a, 2fom:a,

2don:a, 2knh:a, 3krr:t, 3ghm:t, 3ksh:t, 3tkh:t, 3ymt:t, 3hit:t, 3mmm:t,

3fom:t, 3don:t, 3knh:t, 4krr:gt, 4ghm:gt, 4ksh:gt, 4tkh:gt, 4ymt:gt, 4hit:gt,

4mmm:gt, 4fom:gt, 4don:gt, 4knh:gt, 5krr:a, 5ghm:a, 5ksh:a, 5tkh:a, 5ymt:a,

5hit:a, 5mmm:a, 5fom:a, 5don:a, 5knh:a, 6krr:c, 6ghm:c, 6ksh:c, 6tkh:c,

6ymt:c, 6hit:c, 6mmm:c, 6fom:c, 6don:c, 6knh:c



17/30

## FIG. 17

SEQ ID NO: 17 S0174

1 tt[p:gaatcggt tgcaggagag gg]cgggtggcg atggcggagt tggttgggcc gcgggtgtac  
61 agctgctgct gctgccattg ccggaaccac gtctgcactc cacgacgaca tcatctccaa  
121 ggcccttcag gtgaagaaga acttgagtgc ttggggattt gt[lg]gggctga ttgctcaagt  
181 gacaaatact aatcttaggt catgtactga caatctagat tgaattggat ttaatcacta  
241 ggcttctgat gtgcgtagtg ccggattgat ttggtatatt atgctaaaga a[q:ggtaaaaac  
301 atggcatagc cgc]a

nhb/hts/mth/yki/krr/tgr/ghm/mnk/yma/hez/ksh/tkh/akk/ash/ank/mtb/hnh/ymt  
/hit/mmm/fom/don/knh/ssk

lksh:a, ltgr:a, lmnk:a, lyma:a, lhez:a, lakk:a, lhnh:a, lynt:a, lhit:a,  
lmmm:a, lfom:a, ldon:a, lknh:a

## FIG. 18

SEQ ID NO: 18 S0185

1 [p:cgaccccatg aagcttttgc] ctctctcag cttcttgcca cagccaaagt atgatgctag  
61 cctaatttat agcttactgt ttccggtgtt aaatttgctt gtagattcgg gttcacgtgc  
121 aaacttgaat tgataacacc atgtcatgcc aactgctatc tttctcccaa caagtatttc  
181 taaaactcaa ttgaacattg ataattctca agaaagctaa taagtgttac aaatactagc  
241 agctctaaga aatatattca aattctaata tatgcctatt aagcccaaag attccactat  
301 tgtagtctgc attgtttgga attaattgat gaatctactg caggttctga ctacagaaat  
361 agtgcagctt ctctgtccta tatgactata cgaaatgta caagcaaagc atgaggaatg  
421 [23a]atataaaaa actaaacaaa tagtgaaata tctatctaata taacaccaag gagttgcgta  
481 actctgtttg cttctctctgc aggggccaaa gtcaaggagg gggcagagggt ggtggccgtg  
541 gtggtggaag aggcggtttc cgtggccgtg gtggtggtgg cttcgttgga agaggtgcgc  
601 caaggggccg tgggtggacct cct[q:aggggtg gaggtcgtgg attt]

nhb/hts/mth/yki/krr/tgr/ghm/mnk/yma/hez/ksh/tkh/akk/ash/ank/mtb/hnh/ymt  
/hit/mmm/fom/don/knh/ssk

23ksh:c, 23krr:c, 23tgr:c, 23mnk:c, 23yma:c, 23hez:c, 23tkh:c, 23akk:c,  
23ash:c, 23ank:c, 23mtb:c, 23hnh:c, 23hit:c, 23mmm:c, 23fom:c, 23ssk:c

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## FIG. 19

SEQ ID NO:19 S0208

1 atntccccct atcggatcgg tcatggagat gctactgcca ccaccgatga actcctctcc  
 61 cagtcgcggc gaatcaagcg accccgatga aaaatcgagc tccccggcga cggatcgacc  
 121 tgccacgatg gcggattgag cggctcacct ctcctcaccg gatccagcca  
 g[1t]gtcgt[2g]gc  
 181 catcttcgag ctcgagctgc atgcctccgt gcgacagcgg cggatggatcg gacaagggtg  
 241 acgcggatct gtcggcctcc accccgatg agcgattttc cact[3ct]accg  
 gattgag[4t]gt  
 301 atatttggtt ttgtctttta tctgactgga tttctcttct ttttcttctt aattaggatt  
 361 caattgttct taccataaag atgttttttag gcccgatttg gttaggtttt gggggaattt  
 421 ggggttaaact ctatcggttt tctataggag agacggggat agattcggtc ggtttcttta  
 481 ggagggacgg acagaggaag tgcggagggc ggaggggatc gtgaacaaag gggacgtcc  
 541 accaaaata

nhb/hts/mth/yki/krr/tgr/ghm/mnk/yma/hez/ksh/tkh/akk/ash/ank/mtb/hnh/ymt  
 /hit/mmm/fom/don/knh/ssk

1hts:g, 1mth:g, 1yki:g, 1krr:g, 1tgr:g, 1ghm:g, 1mnk:g, 1yma:g, 1ksh:g,  
 1akk:g, 1ank:g, 1mtb:g, 1hnh:g, 1ymt:g, 1hit:g, 1mmm:g, 1don:g, 1knh:g,  
 1ssk:g, 2hts:-, 2mth:-, 2yki:-, 2krr:-, 2tgr:-, 2ghm:-, 2mnk:-, 2yma:-,  
 2ksh:-, 2akk:-, 2ank:-, 2mtb:-, 2hnh:-, 2ymt:-, 2hit:-, 2mmm:-, 2don:-,  
 2knh:-, 2ssk:-, 3hts:c, 3mth:c, 3yki:c, 3krr:c, 3tgr:c, 3ghm:c, 3mnk:c,  
 3yma:c, 3ksh:c, 3akk:c, 3ank:c, 3mtb:c, 3hnh:c, 3ymt:c, 3hit:c, 3mmm:c,  
 3don:c, 3knh:c, 3ssk:c, 4hts:c, 4mth:c, 4yki:c, 4krr:c, 4tgr:c, 4ghm:c,  
 4mnk:c, 4yma:c, 4ksh:c, 4akk:c, 4ank:c, 4mtb:c, 4hnh:c, 4ymt:c, 4hit:c,  
 4mmm:c, 4don:c, 4knh:c, 4ssk:c

20/30

## FIG. 20

SEQ ID NO:20 S0007

1 gctagcttgg ccagcagtac gtgagtctga cgatgcat[p:gc atggatgacc ctgctaata]ta  
61 attatacttc ctccatactc atagaaaaag tccttttagaa caatatttaa atcaaacatt  
121 taaaatataa atcatgaata [3a]ctcttaaat tgttgagttt aaaaatgtaa aaattatatg  
181 aatagatttg tcttgaaaaa tactttcata aaagtgcaca tatattactt ttcaataaat  
241 atttttatag aaaaaagaag tcaaaattgt gttttgtaaa ccgtgtcgct gtccaaaacg  
301 acttccttta cgagtatcaa ccaatcgaat tgcctcctc ctcaaaagtc aacctcctcc  
361 aaattaaagg catgcaagac gccaaaggcg gcagatctgt attcttcccg tggacgggtg  
421 gcgcatgcat gcgtacaaac tttttttttt gttggatttg gtacgagcgt agctgataaa  
481 gatagctagc tcatcagctt ccttcacaga atcacaagaa ctagtggcat atgaatccta  
541 catacttcta tccaattcga tcgatcattc accttgtgcc tatgcaatag gcaatatctg  
601 agctagcgaa cacagtaact ctccctccc cctcctcac gcgccgatca taaattaata  
661 ctccctccgt aatgtatgac gccgttaact ttttaagatg cgtttgatcg ttcattctat  
721 ataaaaaaat atataatatt tattatttat ttaaagtatg atttaactat tatatttgta  
781 tttgcacaaa aatttgaata agataaatag tcaaacatcg a[q:tcaaaaagt caacggcatc  
841 a]tacattaaa aaataaagggt agtattcaat attttgtaaa atattgatcg gacttgtaaa

nhb/hts/mth/yki/krr/tgr/ghm/mnk/yma/hez/ksh/tkh/akk/ash/ank/mtb/hnh/ymt  
/hit/mmm/fom/don/knh/ssk

3yki:g, 3krr:g, 3ghm:g

21/30

## FIG. 21

SEQ ID NO: 21 S0070

1 aacagtcctt gtatgcactg aacgtactgg tgcgg[p:cttgc ttgggcaatc gtcaa]cggtc  
61 aagacgtact aaagagtgga ttaacaaaat gaatgtttta ctaactgtat agtgaacaca  
121 agcgggcacc tatagtcgta acgaccgccg ccaaattgcc cagttgcgta cgcgagaatc  
181 gatcgatcga gccgatccga tcagctagaa tattcgaacg gaataaagag aacatctcca  
241 tgtcctgata cgtgtgtaca cacacgtacg tacgtgtata cgtatacgcg cgtgtgtatg  
301 tgtacatatg tatatatata tatatatata catatacata tgtatgtatg tatatatata  
361 tatacatatg tatgtatgta tgtatatata tatacatatg tatgtatgta tgtatatata  
421 tatatacata tgtatgtgac ggagctcgtg gctcctcacc gggagaccgc gcaggcccc[lt]  
481 ctttgccggt tcggccgggg gcttaggggt agatctcaag ctctctctct ctgtgtgtgg  
541 aaagatcgtc tgctagcaag aaacgcgaga caccggcgat gtatacaggt tcgggccgct  
601 gagaagcgta ataccctact cctgtgtttt ggtggatctg tgtatgaatg agctacaaag  
661 tgtgagccca cctctcccc gttctaagct ctgaatctgg caagaatcaa ccaaccctt  
721 ctctatgggc aaggtcctcc ttttatactt caaggggata ccacatgcac ctttccctt  
781 ccaaactgga cttttcttct ctttatgaac ggagattggt atggttgccg tccgaatgac  
841 acttcgatgg gacagccac acctacctcc actcccggcg gagacgggcg caacgtggga  
901 tcgtggctgc cc[q:gttgctga cgcgaccagt gt]cagaccgg tcattcttgt ccaccacgcg

nhb/hts/mth/yki/krr/tgr/ghm/mnk/yma/hez/ksh/tkh/akk/ash/ank/mtb/hnh/ymt  
/hit/mmm/fom/don/knh/ssk

lmth:c, lghm:c, lhez:c, ldon:c

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## FIG. 22

SEQ ID NO: 22 S0310

1 gatgacttct actccctccg tcccctaata taagggattt tgacatttt[p:g ctttccttgt  
61 ttgaccactc g]ttttatatt ttttgtaaata ataaaaaata aaaagttgtg cttaaagtac  
121 tctggataat aaagtaagtc acaataaaaa taaataataa tttcaaaatt ttct[lg]aataa  
181 gacgaatggt caaaca[2g]tgc aagtaaaatg tcaaaatccc ttatattaag  
[3g]gacggaggg  
241 agtatgtatt acctccaaaa tatagtaact t[4t]aagacgag atta[5g]atacc  
acgaaaatat  
301 attcttaact ctatgtatta ggttggttata tttttttaac agaga[6g]tagt atcaattcaa  
361 agtggattaa ttactctttc [7c]gt[8c]ttaaag tataataact tctaagattc  
aaaattttatc  
421 cccaaacaaa caacttttca cctacatttc attctcaatc gactacaatc ttccactcca  
481 [9t]atattttat tttctctac[10c] aatcacattc ttttccattt aacttcacac  
tctctcttaa  
541 aacttttata ttttgatacg gaggtagtagt aaaatttctg atcg[11g]ttgat gtgcagtggc  
601 aaaagagctc at[12g]agacatt ccaactgcaca gacaatctgg gccttcttac atggactggc  
661 acaattttaac atatt[13c]caag ctgtgcct[14-]gg tggatgtagg gatgcaagta  
ggtaaccccg  
721 t[15a]aatccact tatatgcaaa ataagtag[16a]t att[17t]acgggt ttaccttact  
aatttggttt  
781 ataaatgggt ttatgggtcg acccatttgc atctctaggt gcgataagt[q:c aagccacgac  
841 atgaaaatgg] gttaccactt atttgacgta taagtagatt ggcgggtccg ttaattgca  
nhb/ksh/hts/mth/yki/krr/tgr/ghm/mnk/yma/hez/tkh/akk/ash/ank/mtb/hnh/ymt  
/hit/mmm/fom/don/knh/ssk

## FIG. 23

1krr:a	1tgr:a	1ghm:a	1mnk:a	1yma:a	1ksh:a	1akk:a	1ymt:a	1hit:a
1mmm:a	1fom:a	1don:a	1knh:a	2krr:a	2tgr:a	2ghm:a	2mnk:a	2yma:a
2ksh:a	2akk:a	2ymt:a	2hit:a	2mmm:a	2fom:a	2don:a	2knh:a	3krr:a
3tgr:a	3ghm:a	3mnk:a	3yma:a	3ksh:a	3akk:a	3ymt:a	3hit:a	3mmm:a
3fom:a	3don:a	3knh:a	4krr:-	4tgr:-	4ghm:-	4mnk:-	4yma:-	4ksh:-
4akk:-	4ymt:-	4hit:-	4mmm:-	4fom:-	4don:-	4knh:-	5krr:t	5tgr:t
5ghm:t	5mnk:t	5yma:t	5ksh:t	5akk:t	5ymt:t	5hit:t	5mmm:t	5fom:t
5don:t	5knh:t	6krr:a	6tgr:a	6ghm:a	6mnk:a	6yma:a	6ksh:a	6akk:a
6ymt:a	6hit:a	6mmm:a	6fom:a	6don:a	6knh:a	7krr:t	7tgr:t	7ghm:t
7mnk:t	7yma:t	7ksh:t	7akk:t	7ymt:t	7hit:t	7mmm:t	7fom:t	7don:t
7knh:t	8krr:t	8tgr:t	8ghm:t	8mnk:t	8yma:t	8ksh:t	8akk:t	8ymt:t
8hit:t	8mmm:t	8fom:t	8don:t	8knh:t	9krr:c	9tgr:c	9ghm:c	9mnk:c
9yma:c	9ksh:c	9akk:c	9ymt:c	9hit:c	9mmm:c	9fom:c	9don:c	9knh:c
10krr:t	10tgr:t	10ghm:t	10mnk:t	10yma:t	10ksh:t	10akk:t	10ymt:t	10hit:t
10mmm:t	10fom:t	10don:t	10knh:t	11krr:c	11tgr:c	11ghm:c	11mnk:c	11yma:c
11ksh:c	11akk:c	11ymt:c	11hit:c	11mmm:c	11fom:c	11don:c	11knh:c	12krr:c
12tgr:c	12ghm:c	12mnk:c	12yma:c	12ksh:c	12akk:c	12ymt:c	12hit:c	12mmm:c
12fom:c	12don:c	12knh:c	13krr:t	13tgr:t	13ghm:t	13mnk:t	13yma:t	13ksh:t
13akk:t	13ymt:t	13hit:t	13mmm:t	13fom:t	13don:t	13knh:t	14krr:g	14tgr:g
14ghm:g	14mnk:g	14yma:g	14ksh:g	14akk:g	14ymt:g	14hit:g	14mmm:g	14fom:g
14don:g	14knh:g	15krr:g	15tgr:g	15ghm:g	15mnk:g	15yma:g	15ksh:g	15akk:g
15ymt:g	15hit:g	15mmm:g	15fom:g	15don:g	15knh:g	16krr:g	16tgr:g	16ghm:g
16mnk:g	16yma:g	16ksh:g	16akk:g	16ymt:g	16hit:g	16mmm:g	16fom:g	16don:g
16knh:g	17krr:c	17tgr:c	17ghm:c	17mnk:c	17yma:c	17ksh:c	17akk:c	17ymt:c
17hit:c	17mmm:c	17fom:c	17don:c	17knh:c				

## FIG. 24

SEQ ID NO: 23 S0375

1 aatctgatat ttcttctggt tcaaatgata attg[p:acacaa gtgtgccatt ttgc]aaaaac  
61 cataccttta atttcatttt atggtacgta tgccaagtaa aacttgtgaa ctacactatt  
121 tagttgctta [lg]tcataaaga actcaagtat tctttttttg aggaaaagcc ttagaagagg  
181 acagggagag cctgttttca ttaaagaaga agagacttgg cccagttttt gaggggaaac  
241 caggcccaaa aacctcagaa ctcaagtatt ctattatatg aaacttaata aactgcgtca  
301 aagctgtggt cttcttttct gttgttgcaac atcgcaagtt taagcctgaa atatgttatt  
361 tttccatggt gcccatctt caataatgga agctttatta aaactcagtc aaatacaaca  
421 agatgataca ttctaattga gccactccc gacctctgca agaatgcac acagccacaa  
481 aacatgacct atctagaccc ccattgcctt cttcatgctc ttaatttctg taacatactg  
541 ttcacctgtc tggetatctg ggatttttca aggtgtacac ctacggtcac tttgatggaa  
601 ggtgaagggg aattacctca actgaacaga ggatgctggt tatacagaac tactaacatc  
661 gtaagaacat tctatgattc tgatgcagac atacagtaca gttttaatct aatcaaggag  
721 gacgccatat gtgggacacc gcagcgaagt gtaaggagtc ctagaacatc taccttagga  
781 gttaagaaga atctatgaga ttgtatgtat aaacatcagg tttctgcaaa tactcttata  
841 taaattccta atgcctgtat tgcaaatata tactttcagt tcgcattaaa gtgtgatagt  
901 atgtatgtca cctt[q:tggtct caggtagctt ggca]aatgg caggtcagac ggatcaagct

nbb/ksh/hts/mth/yki/krr/tgr/ghm/mnk/yma/hez/tkh/akk/ash/ank/mtb/hnh/ymt  
/hit/mmm/fom/don/knh/ssk

lmth:c, ltgr:c, lmnk:c, ltkh:c, lash:c, lmtb:c, lhnh:c, lhit:c, lmmm:c,  
ldon:c, lssk:c



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## FIG. 25

SEQ ID NO: 24 S0346

1 gagatatatt gcaatatttt gagaattatg tgaaatgatg atttaa[p:cgtg cttggatttt  
 61 tgtaagc]tct aaaatttttaa gtgaggataa actatataag catataggat attataaaaa  
 121 gtgaaggaga ggtatattga aatattatgt ggattatgtg ggatgataat ttaattaaca  
 181 tgcttgcatt ttaaagttct aaaacttaat aaattagcat gcttgcata gattt[1a]agat  
 241 gta[2t]taaatg ttagtggatg atgtggcatc tttgcatgtt gagctttaag atgtagtggg  
 301 ctttaacttt atagaaa[3t]at a[4g]gattaatt cctatagaat gtcatgatgc  
 aggatgtcat  
 361 taataatcct ccaagctggt cccitttaac ttttt[5-]ccct gttacttgaa acttgactaa  
 421 ggatt[6-]ctctt cgtattaatg tggattgtgt cactgaccat atggttgtat ctttctttca  
 481 gcgcttcgct gggacttgga atgtttgtt[7g] ttttccagt ctttcatggc catggaactc  
 541 agaatgtctc caacgtgcaa attcttggtt gtgatctaga a[8g]atggttat ttgtttgaaa  
 601 caatggaagc acttgatgtt cccttagcat atacacttgt gagcttgtgt tgatagaatt  
 661 gtaaagctta catatgtttt agttctacta ttattttgaa ga[p:gggaaatg tgcagctgga  
 721 tgc]

nhb/ksh/hts/mth/yki/krr/tgr/ghm/mnk/yma/hez/tkh/akk/ash/ank/mtb/hnh/ymt  
 /hit/mmm/fom/don/knh/ssk

1krr:g, 1ghm:g, 1ksh:g, 1tkh:g, 1ymt:g, 1hit:g, 1mmm:g, 1fom:g, 1don:g,  
 1knh:g, 2krr:g, 2ghm:g, 2ksh:g, 2tkh:g, 2ymt:g, 2hit:g, 2mmm:g, 2fom:g,  
 2don:g, 2knh:g, 3krr:g, 3ghm:g, 3ksh:g, 3tkh:g, 3ymt:g, 3hit:g, 3mmm:g,  
 3fom:g, 3don:g, 3knh:g, 4krr:a, 4ghm:a, 4ksh:a, 4tkh:a, 4ymt:a, 4hit:a,  
 4mmm:a, 4fom:a, 4don:a, 4knh:a, 5krr:t, 5ghm:t, 5ksh:t, 5tkh:t, 5ymt:t,  
 5hit:t, 5mmm:t, 5fom:t, 5don:t, 5knh:t, 6krr:gt, 6ghm:gt, 6ksh:gt, 6tkh:gt,  
 6ymt:gt, 6hit:gt, 6mmm:gt, 6fom:gt, 6don:gt, 6knh:gt, 7krr:a, 7ghm:a, 7ksh:a,  
 7tkh:a, 7ymt:a, 7hit:a, 7mmm:a, 7fom:a, 7don:a, 7knh:a, 8krr:c, 8ghm:c,  
 8ksh:c, 8tkh:c, 8ymt:c, 8hit:c, 8mmm:c, 8fom:c, 8don:c, 8knh:c

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## FIG. 26

SEQ ID NO: 25 S0013

1 [p:aaattcggaa tggctagctg] ttgagagtca ttaactccat ccatgtgatg ggtaacacct  
61 actctactct acagtataat actagtgtgg tactgatacg gtgattatat gctgtactat  
121 cattatacta ctg[2c]ggccct gtttggttct at[3gg]actaat gtttagctct  
cacattttta  
181 [6t]tttaaatta gccctc[7a]aga atccaaacag gtggg[10c]taat tttgagctaa  
tgtgaattag  
241 cccccc[12c]aa aatattagcc cctccaag[29g]g [30a]tgctaata ggttaatttt  
gtgtggggat  
301 catcaaaaa[17g c]agctctctc tc[18-]ctctcttt ctactctctc caacttttag  
ccttgaatta  
361 gcccatggat ccaaataac caccctagge taatgttttag c[22a]tattaatt tatgactaaa  
421 cattagctct taaaattāgc cctgg[28-]ttaat cttaccaaca ggcctcgtt gtgttacttg  
481 tgcacgcgat gcacggacag tttcattctc tgtcttcaaa ggcttgaagc cggcaacata  
541 tcgttttcat agacagct[27a]t tgtaccacaa cggtagtacc ctactctcc atttctcact  
601 cagcttcgtc tttacaaca ccgttgtacc atgcttacca tttgcctctc tatgaaaata  
661 aaaacatcat ttcgattttc aaaaatatag ctcaactggg ttcaactcaa ctgtctaatt  
721 aggcgatgta catatcaaca tcggaacgtc tataataact tcttaaatct caaaatata[q:t  
781 tggttgaatc atcgaggt]

nbb/hts/mth/yki/krr/tgr/ghm/mnk/yma/hez/ksh/tkh/akk/ash/ank/mtb/hnh/ymt  
/hit/mmm/fom/don/knh/ssk

2krr:t, 3krr:at, 6krr:c, 7krr:g, 10krr:t, 12krr:t, 17krr:at, 18krr:tctc,  
22krr:c, 28krr:g, 27krr:c, 29krr:a, 30krr:g

## FIG. 27

SEQ ID NO:26 S0347

1 attttcagaa cagtcatcat agacatgcc a atttactaca agcgaagact ggagaggtta  
61 ggattcaa at agttaataat taactttttt t[lg]gaatcagt atgctatata tagttaaaact  
121 ttaggagaaa gaacattggt gatatgaaga cactattgct ctaaatatga acaacacaca  
181 caataaatct aagttcgggt tactgaacta tcaggtatgg acctatattc aaaactaaca  
241 taggaggcca gcacgtgggt atatcccttg atcccgaggt gaaccagttc atatttcaac  
301 aagaggggaa gttgttccaa tcttggtttc cagaaaccac actaaacatc tttggaaaga  
361 agacactcac cacgtataat agaactgctc acaagttgat ccggagcttc gtatgcaage  
421 tctatggccc tgaaaacgtg aaaaaatcac tctgcccaga actagagaac tccatgaggg  
481 aaagcttggt gtcattgata ggaaaaccta gtgtcgaggt gaatgatggc gtgtcaa atg  
541 taagttaaca tctgcatttc tacataagta ttcacaattg cacagtgtc ataaaatcat  
601 catgatgttt tactatgatt aatttctatt gtgcagatga tcttcggcct agctgccaaa  
661 cattgattgg cctcgacatc accattcagg agattgaaaa agacttcag

nhb/ksh/hts/mth/yki/krr/tgr/ghm/mnk/yma/hez/tkh/akk/ash/ank/mtb/hnh/ymt  
/hit/mmm/fom/don/knh/ssk

lmth:c, lkrr:c, lghm:c, lyma:c, lhez:c, lksh:c, ltkh:c, lakk:c, lank:c,  
lmtb:c, lynt:c, lhit:c, lmmm:c, lfom:c, ldon:c, lknh:c, lssk:c

## FIG. 28

SEQ ID NO: 27 S0330

1 cacac[p:atcaa gcacgatcgg aaacg]ttgta ctgtatctcc cgcataatga ttatggagtt  
61 ggcactcgag atcaagatat cagaatagta tatttttctg ttttcaattc ttcctctcca  
121 cagagctctt cctagcctcg gcttgtgaga gtaagcgcgc ctcccagcca actaagaatt  
181 tgtcggcctt cgcaatggtt ggttgcaggt ctgctgttct caacttttgg attgacaaag  
241 gaagacctaa ttaggacatt agcagggatt cctgtttgca ttgcagagtg tgaatcagct  
301 gagactcttc ctccgctccc acatagatgc atatcattgt gctcttacta aagttgattt  
361 gcagacttgt tgccctagaa aactcgtcta ggcaatgctt tagtggtgtt acataagcaa  
421 tcgaagctcg tcaaataatc aatataacat tggcactactg cagagctgta cgaggtctct  
481 gagggtagag atggtgtcca gagcagggtt tgctctaaga aggcattgga gcacatctgc  
541 cggatgaaca agtaaggatga cataggatca ccttgacgta gccctctctt acaaccgac  
601 cacctgcccc ggacttcatt gagaaggata gttgactttg aagtctgcta catgttgatc  
661 acccaatgga tccaagtatc gggaatcctc ttgccctcat aatatctagc agactttccc  
721 atcttatggt ttaggaggaa tt[la]tatgggtg tttgacaaat ttctaattaa atcttattgg  
781 catatatttt tcagggaaat atattgggtt tggttctaag cacaactaca aatgtgtgaa  
841 aagtacaaga agctaaaaca tactgcatat caa[q:aacttgg agtccacggc cat]aaatata

nhb/ksh/hts/mth/yki/krr/tgr/ghm/mnk/yma/hez/tkh/akk/ash/ank/mtb/hnh/ymt  
/hit/mm/mom/fom/don/knh/ssk

lkrr:g

## FIG. 29

SEQ ID NO: 28 S0336

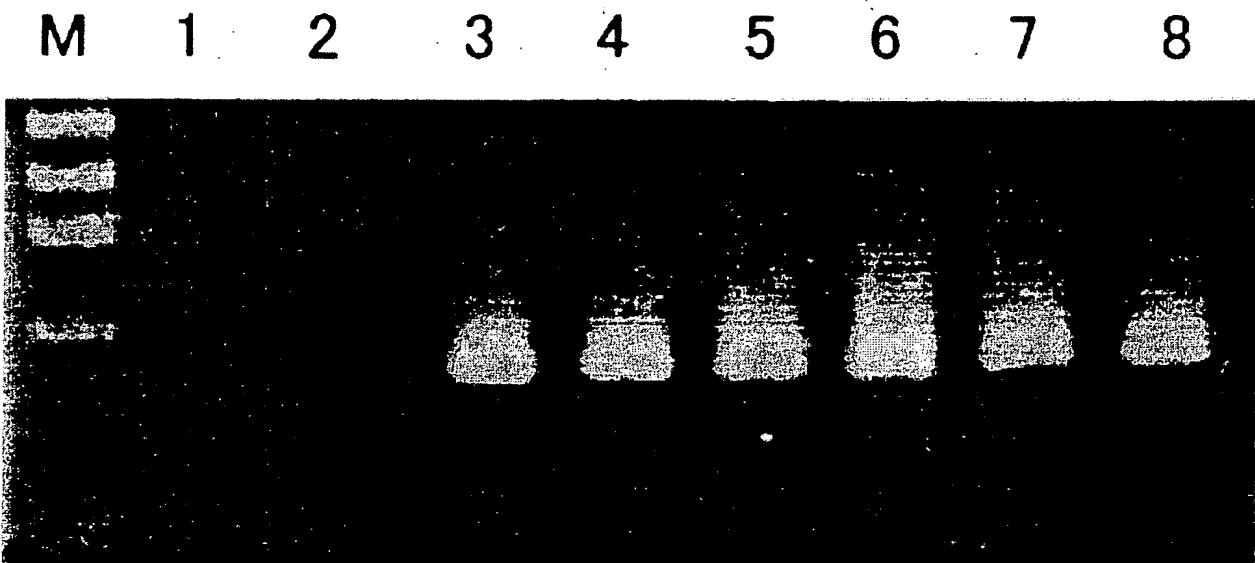
1 ttgaataaac catgaaaat tattacacat ataatacatt agc[p:gaccaa ttgtttcgcc  
 61 ccta]actaga tgatgccccg cgctttgctg cgggatatat gttagatact ggagaaatga  
 121 acaaatgatt tggattaaaa tattatgaaa atggtttgag aat[1t]agtatg tttagttttg  
 181 gaatgaagta aattgtagat ataattacta tatgcttgca tggt[2a]aactt tgtgtgctta  
 241 atgggttgat gtg[3g]catgct [4a]catgta[5a]gt ttaggagtg ctaataaata  
 ctatg[6t]ttat  
 301 atgttgagct ttaggtgttt agtgg[7a]catt agctttatag aaagaagaga tccctttcct  
 361 ttttcaggtg attttctgtc cagtccacct cttttcatct ttttttggtta taataactct  
 421 cgtggacgag aatttagagt attaccatc caattcgtgt gcctcaactt tttacactc  
 481 aatccgtatg cctctataa tactccgtat gacattagga ctgctaacta gtctatttgg  
 541 taccactttc t[8c]agtttttg atgtatttct catttcttaa ctcaatttgt atttctttta  
 601 tggcattgtg gacaattttg cccctaggcc cactgtaaga tcaaaggaag attgtcgtag  
 661 gctctc[9c]gga cttccatta tatttgagag ataaagtga taattcaagt catcaacaa  
 721 gcataat[10g]aa acatccgacg cctcgagaga gaaatattgg agacattgct ggacctttag  
 781 cctgccagtc aacttcagcc taaaatgtgc [q:tcgtcaaacc actcgaaggc] ggcgaccaga

nhb/ksh/hts/mth/yki/krr/tgr/ghm/mnk/yma/hez/tkh/akk/ash/ank/mtb/hnh/ymt  
 /hit/mmm/fom/don/knh/ssk

1mth:c, 1krr:c, 1tgr:c, 1mnk:c, 1yma:c, 1hez:c, 1ksh:c, 1akk:c, 1hnh:c,  
 1hit:c, 1mmm:c, 1fom:c, 1ssk:c, 2mth:g, 2krr:g, 2tgr:g, 2mnk:g, 2yma:g,  
 2hez:g, 2ksh:g, 2akk:g, 2hnh:g, 2hit:g, 2mmm:g, 2fom:g, 2ssk:g, 3mth:a,  
 3krr:a, 3tgr:a, 3mnk:a, 3yma:a, 3hez:a, 3ksh:a, 3akk:a, 3hnh:a, 3hit:a,  
 3mmm:a, 3fom:a, 3ssk:a, 4mth:g, 4krr:g, 4tgr:g, 4mnk:g, 4yma:g, 4hez:g,  
 4ksh:g, 4akk:g, 4hnh:g, 4hit:g, 4mmm:g, 4fom:g, 4ssk:g, 5mth:g, 5krr:g,  
 5tgr:g, 5mnk:g, 5yma:g, 5hez:g, 5ksh:g, 5akk:g, 5hnh:g, 5hit:g, 5mmm:g,  
 5fom:g, 5ssk:g, 6mth:c, 6krr:c, 6tgr:c, 6mnk:c, 6yma:c, 6hez:c, 6ksh:c,  
 6akk:c, 6hnh:c, 6hit:c, 6mmm:c, 6fom:c, 6ssk:c, 7mth:g, 7krr:g, 7tgr:g,  
 7mnk:g, 7yma:g, 7hez:g, 7ksh:g, 7akk:g, 7hnh:g, 7hit:g, 7mmm:g, 7fom:g,  
 7ssk:g, 8mth:t, 8krr:t, 8tgr:t, 8mnk:t, 8yma:t, 8hez:t, 8ksh:t, 8akk:t,  
 8hnh:t, 8hit:t, 8mmm:t, 8fom:t, 8ssk:t, 9mth:t, 9krr:t, 9tgr:t, 9mnk:t,  
 9yma:t, 9hez:t, 9ksh:t, 9akk:t, 9hnh:t, 9hit:t, 9mmm:t, 9fom:t, 9ssk:t,  
 10mth:a, 10krr:a, 10tgr:a, 10mnk:a, 10yma:a, 10hez:a, 10ksh:a, 10akk:a,  
 10hnh:a, 10hit:a, 10mmm:a, 10fom:a, 10ssk:a

30/30

FIG. 30



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